

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An image processing apparatus for detecting posture, or posture and position of a three-dimensional object, comprising:

a plurality of stacked objects, each having identical three-dimensional shapes but different positions and postures

an image capturing device;

a memory storing a plurality of reference models created based on image data of a reference object captured by said image capturing device in a plurality of angular rotation directions, and storing information of the angular rotation directions respectively associated with said reference models, said reference object being an object of detection or an object having a shape identical to that of the object of detection; and

a processor to perform matching processing on image data containing an image of the object of detection captured by said image capturing device, ~~amongst a plurality of three-dimensional objects of detection, all at various angular rotation positions, with against~~ said plurality of stored reference models ~~which have been stored in memory to and~~ select an image of an object matched with one of said reference models, and to obtain posture, or posture and position of the object based on the selected image of the object, said one of said reference models and the information of said respective angular rotation directions associated with said one reference model.

2. (Previously Presented) An image processing apparatus according to claim 1, wherein said reference models comprise a part of the image data of the reference object.

3. (Original) An image processing apparatus according to claim 1, wherein said reference models are obtained by processing the image data of the reference object.

4. (Original) An image processing apparatus according to claim 1, wherein said image capturing device comprises a camera for capturing two-dimensional image data.

5. (Original) An image processing apparatus according to claim 4, wherein said image data of the reference object are captured by said image capturing device from a predetermined distance.

6. (Original) An image processing apparatus according to claim 1, wherein said image capturing device comprises a visual sensor for capturing three-dimensional image data.

7. (Currently Amended) An image processing apparatus according to claim 6, wherein said image data containing an image of the object of detection captured by said visual sensor is two-dimensional arrangement data including distance information from the object of detection to the image capturing device, a part of said two-dimensional arrangement data or a set of distance data.

8. (Previously Presented) An image processing apparatus according to claim 1, wherein said image capturing device is attached to a robot.

9. (Previously Presented) An image processing apparatus according to claim 1, wherein said image data of the reference object are captured in a place different from a place where the detection of the object is performed, and supplied to the image processing apparatus on line or off line.